

**PROPHYLACTIC AND THERAPEUTIC AGENT FOR ITCHING ACCOMPANIED BY KIDNEY DIALYSIS**

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**Abstract of JP2002338476**

**PROBLEM TO BE SOLVED:** To provide an external preparation capable of rapidly alleviating or eliminating itching followed by kidney dialysis without side effects. **SOLUTION:** This external preparation for prophylaxis and treatment of itching followed by kidney dialysis comprises chitosan as an active ingredient.

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(54)【発明の名称】 腎透析に伴う痒みの予防治療剤

(57)【要約】

【解決手段】 キトサンを有効成分とする腎透析に伴う痒みの予防治療用外用剤。

【効果】 本発明外用剤を用いれば腎透析に伴う痒みを迅速かつ副作用なく、軽減又は消失させることができる。

患者7名を対象にした。透析終了5~8時間後に、実施例1のローション数滴~10滴を手のひらにとり、腕、背中等の痒い部位に塗布し、以下の基準により痒みの改善効果を評価した。

◎：塗布した直後から痒みがほとんど消失した。

○：塗布した直後から痒みがかなり軽減した。

×：痒みが軽減しなかった。

その結果、表1に示すように、対象患者全員からローションを塗布した直後から搔痒感が軽減又は消失したと回答を得た。効果の持続時間は2~6時間であった。また、対象患者全員において副作用は認められなかった。

[0017]

[表1]

| 年齢 | 性別 | 透析歴(年) | 評価結果 |
|----|----|--------|------|
| 50 | 女  | 7      | ◎    |
| 52 | 女  | 17     | ○    |
| 49 | 女  | 1      | ○    |
| 27 | 女  | 6      | ◎    |
| 48 | 男  | 10     | ○    |
| 50 | 男  | 8      | ○    |
| 52 | 女  | 9      | ◎    |

【発明の効果】本発明外用剤を用いれば腎透析に伴う痒みを迅速かつ副作用なく、軽減又は消失させることができる。

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(54) PROPHYLACTIC AND THERAPEUTIC AGENT FOR ITCHING ACCOMPANIED BY KIDNEY DIALYSIS

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an external preparation capable of rapidly alleviating or eliminating itching followed by kidney dialysis without side effects.

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**CLAIMS**

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[Claim(s)]

[Claim 1] External preparations for a prevention therapy of the itch accompanying the kidney dialysis which makes chitosan an active principle.

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[Translation done.]

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## DETAILED DESCRIPTION

## [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the prevention therapy agent of the itch which occurs frequently to a kidney dialysis patient.

[0002]

[Description of the Prior Art] Although the patient who suffers from serious kidney disease, such as chronic renal failure, is generally obliged to hemodialysis throughout life, the skin itch (itch) shows the symptoms of him to 80 - 90% of these kidney dialysis patient. This itch is durability and generalized, and it poses a big problem which leads to the fall of QOL, so that it is irritated all day long or sleep is barred.

[0003] Although a moisturizer, topical steroid ointment, the antiallergic agent, the antihistamine, etc. usually used to the itch accompanying this kidney dialysis, no these can say it as the therapy agent which should still be enough satisfied in respect of immediate effect nature, a side effect, etc.

[0004] The present condition is that many things are studied about the onset mechanism of the itch accompanying kidney dialysis, and the cure which it is not fully solved yet, therefore can be satisfied enough is not established on the other hand, either.

[0005]

[Problem(s) to be Solved by the Invention] Therefore, the purpose of this invention is to offer the prevention therapy agent of the itch accompanying kidney dialysis which does not have a side effect and was excellent in immediate effect nature.

[0006]

[Means for Solving the Problem] Then, this invention person came to complete a header and this invention for there being no side effect in the external preparations containing chitosan, and there being very prompt itch mitigation or quenching the place which medicated the dialysis patient with various drugs and has examined the effectiveness.

[0007] That is, this invention offers the external preparations for a prevention therapy of the itch accompanying the kidney dialysis which makes chitosan an active principle.

[0008]

[Embodiment of the Invention] As chitosan used for this invention, although both the crustacean origins, such as a crab and a shrimp, and the cuttlefish origin can be used, especially the thing of the cuttlefish origin is desirable. As for these chitosan, the rate of deacetylation can use 50% or more of commercial item. Among these, it is desirable that the rate of deacetylation uses 90% or more of especially chitosan 75% or more.

[0009] Although it is known that chitosan is useful as a moisturizer, it is not known at all that it can be used for a kidney dialysis patient's itch.

[0010] It is desirable to contain chitosan 0.1 to 1.0% of the weight further 0.05 to 2% of the weight 0.01 to 5% of the weight especially in this invention external preparations.

[0011] As a gestalt of this invention external preparations, ointment, a cream, gel, a lotion, a milky lotion, etc. are mentioned. In order to pharmaceutical-preparation-ize in these gestalten, it can use combining suitably hydrophilic radical agents, such as oleaginous-bases; hydrophilic

petrolatum, such as white vaseline, yellow petrolatum, paraffin, a liquid paraffin, silicone, vegetable oil, animal oil, and higher alcohol, purified lanolin, a polyethylene glycol, higher alcohol, a glycerol, and an emulsifier, etc.

[0012] Moreover, an antiallergic agent, an antihistamine, a urea, other moisturizers, etc. may be blended with this invention external preparations in addition to chitosan.

[0013] What is necessary is just to use this invention external preparations for the skin whose symptoms a kidney dialysis patient's itch tends to show by carrying out optimum dose spreading.

By [ which write ] carrying out, an itch can be mitigated or vanished very promptly.

[0014]

[Example] Next, although an example is given and this invention is further explained to a detail, this invention is not limited to this at all.

[0015]

## Example 1 (lotion)

(% of the weight)

Chitosan (a cuttlefish, 95% or more of rates of deacetylation) 0.200 Pyrrolidone carboxylic-acid Na 0.546 Lactic acid Na 1.500 Glutamic-acid Na 0.100 Glutamic acid 0.150 Glycerol 0.300 Sorbitol 0.279 Proline 0.075 Phenoxethanol 0.300 Cocoyl arginine ECHIRUPIORIDON carboxylate 0.300 Purified water 96.250 Total 100 [0016] It was targeted at seven maintenance dialysis patients who appeal against a feeling of skin itching according to suggestion and directions of the example medical practitioner of a trial 5 - 8 hours after dialysis termination. - [ several drops of ] ten drops of lotions of an example 1 were applied to the part where an arm, the back, etc. are itchy for a palm, and the following criteria estimated the improvement effect of an itch.

O : the itch almost disappeared from from immediately after applying.

O : the itch mitigated considerably from from immediately after applying.

x: An itch did not mitigate.

Consequently, immediately after applying a lotion from all candidate patients, as shown in Table 1, the reply was obtained from from as a feeling of itching mitigated or disappeared. The persistence time of effectiveness was 2 - 6 hours. Moreover, the side effect was not accepted in all candidate patients.

[0017]

## [Table 1]

| 年齢 | 性別 | 透析歴(年) | 評価結果 |
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| 21 | 女  | 6      | ○    |
| 43 | 男  | 10     | ○    |
| 50 | 男  | 3      | ○    |
| 53 | 女  | 9      | ○    |

[0018]

[Effect of the Invention] If this invention external preparations are used, there are not quick and a side effect, and it can mitigate, or the itch accompanying kidney dialysis can be vanished.

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